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IDAHO TROUT UNLIMITED

February, 10, 2000

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Dear Sir or Madam:

This submission represents the position of Idaho Trout Unlimited (ITU) relative to the four Lower Snake River Dams. ITU is part of the nations largest coldwater fisheries conservation organization with approximately 1,200 members in Idaho. We have a long-standing record as an active participant of the Idaho angling and conservation community. Our concern and investment in colwater fisheries in Idaho is significant.

Many of our members have participated as active anglers for an extended period of time. Since the building of the Lower Snake dams we have seen the plunge of fish numbers with our own eyes. Over time we have read the reports and, more recently, the concentrated flurry of publication by biologic and economic scientists. We have read thousands upon thousands of pages written by credible scientists and passionate, well-meaning, special interest groups. We have read complex and sometimes unintelligible reports that presume to help meet the requirements of the National Environmental Policy Act. We were aware of the original studies to assess these dams and, in fact, we were aware of the less then 1:1 cost benefits reported for two of the dams when the justifications were first prepared for the congress. We were also aware of the change and rapid rewrites to achieve a positive cost benefit ratio and the subsequent funding approval that lead to building these dams many years ago. We know that well intended people assured us that the fish would not suffer major harm and fishing opportunities would be enhanced after dam building. We are now witness to the legacy effects of these dams -- the decimated river ecosystems; the disastrous collapse of fish numbers; the extinction of wild fish runs in Idaho and, lastly, the imminent threat of further extinction.

7 | Extinction is not acceptable to ITU. We will only support a process that assures the return of fish runs in numbers that provide a fishable surplus for non-indigenous people and a fair number of catchable fish to support the cultural needs of the indigenous people who live along these rivers. They have treaty rights to these fish. It is our view that the best possible action to bring about this desired result is the breaching of the four Lower Snake river dams.

WE OBSERVE THAT:

After a protracted wait for the NMFS report what we get is a "duck" and the suggestion, with little supporting information, that there may be another way.

NMFS & others are still studying barging, more tecno fixes, & using more Idaho water to flush fish toward the ocean. This after 20 years and billions of dollars and the result has been lower and lower counts of wild fish. These fish need the river's current and no amount of barging or dam "fixes" has sufficed as a replacement.

Only breaching has been endorsed by hundreds of knowledgeable scientists as the option offering fish the best possibility of recovery.

If it becomes necessary to use Idaho water this will assure protracted battles in court and lawyers will undoubtedly cite state water rights law. Attorneys privately, both in and out of Idaho, are apprehensive that the Endangered Species Act will be held supreme. In the end only the lawyers will win.

If the fish are not saved the taxpayers of this nation will face a potentially enormous bill (estimates exceed \$10 BILLION) to pay the native people for our nations violation of treaty rights that guaranteed the preservation of fish.

The annual loss of value for power produced by these four dams is less then the annual amount spent on salmon recovery. This power loss can easily be made up by energy conservation practices commonly used in the rest of the United States where power is far more expensive.

A restored salmon and steelhead fishery will be worth more then \$150 million annually to the people of Idaho and the free flowing Snake will be worth much as a recreation resource for people in the region. We have seen no estimates of the aesthetic value of a free flowing river with migrating salmon and steelhead, however we know that value exists.

Breaching the dams will eliminate the potential need for water from southern Idaho that is currently used to irrigate over 600,000 acres of cropland. The economic and social impact of this strategy is enormous.

Mitigation of the impacts to farmers, shippers and others will be small and short term when compared to the lasting finical and ecological impacts wrought upon the region by these dams. In fact if wheat farmers are able to ship their product in dry container units they may become more competitive on the world market as they present segregated wheat for sale. Irrespective of the dams much of the region is in economic transition from extraction to higher technology industry and a world market.

Sadly the politicians and bureaucracy need to do what is right for the future however they seem caught in a vice of indecision. They espouse "saving the fish" but claim the "science is not clear" or "there may be another way". Will it again be left to the courts to act for the legislature? Perhaps that is best in the long run as the courts may be the only vehicle left that is capable of understanding these complex situations and making a decision that provides the greatest good for the greatest number of people in the long run.

We urge you to make a decision that will lead to the rapid breaching of the four Lower Snake dams.

Sincerely,

Robert D. Dunnagan

Comments of Trout Unlimited

Submitted by Trout Unlimited's
Western Conservation Office

Idaho Falls, Idaho
March 7, 2000

These comments apply to two sections of the U.S. Army Corps of Engineer's Lower Snake River Feasibility Study Draft EIS (DEIS).

1. **The purpose and need statement contained in the DEIS is inadequate and does not provide a proper description of the underlying federal action for which the study was prepared.**

1 The need statement emphasizes that the purpose of the feasibility study is merely to look at the impacts of the dams and reservoirs. However, this need statement, as written, diverts attention from the underlying issue of salmon survival, the need to improve such survival, and the possible changes to the lower Snake River dam and reservoir system necessary to lessen impacts to ESA-listed salmon and steelhead. This is the substantive and primary purpose of the Corps study. The DEIS should be re-written to reflect the actual purpose for which the study was developed – to pick the best alternative to recover salmon and steelhead.

2. **The DEIS is deficient because nowhere does it lay out in systematic fashion to the public the actual status of ESA-listed Snake River salmon and steelhead, and fails to describe in detail how each "H" – hydro, habitat, harvest, and hatcheries – has contributed (both historically and currently) to species decline.**

2 These deficiencies are not only evident in the present content of the DEIS, but also in the way information has been presented at recent public hearings. While displays for each of the Hs with ample information tolling the potential virtues and effects of some actions on people, the federal government has not provided sufficient information regarding the actual status of wild fish, and the possible impacts from various "H" alternatives on fish recovery.

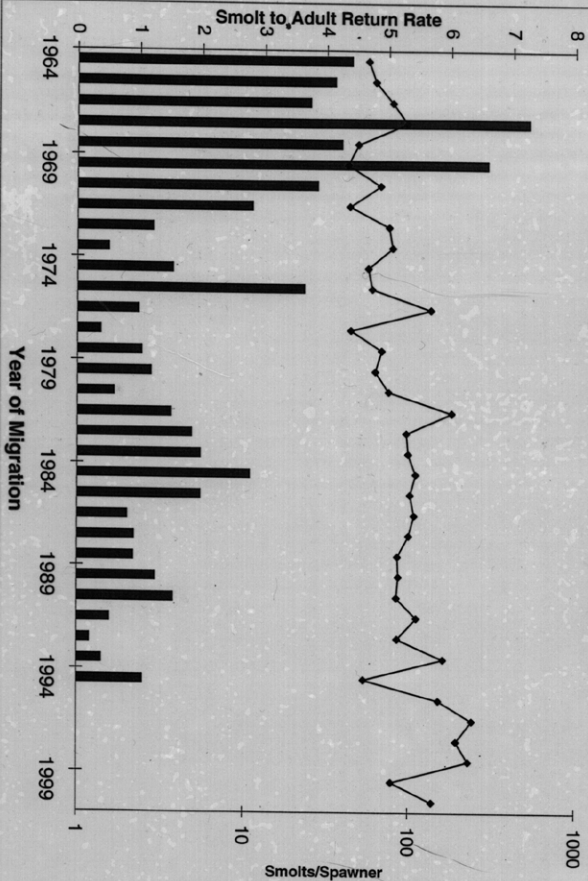
3 Trout Unlimited would like place into the record two graphs that contain some important information that should receive more emphasis in the final version of the Corps' documents. The first graph is a time series showing the number of spawning redds in the Snake River Basin. This is for both spring and summer chinook salmon, and the information dates to the late-1950s. State and federal biologists have been systematically counting salmon redds in central Idaho and eastern Oregon for decades. This graph is buried in the Corps EIS in chapter 4, section 5, on page 15. This graph tells an important story: the number of wild adult spring and summer chinook salmon has drastically declined over time. Further, the mean trend has been negative for several generations of salmon.

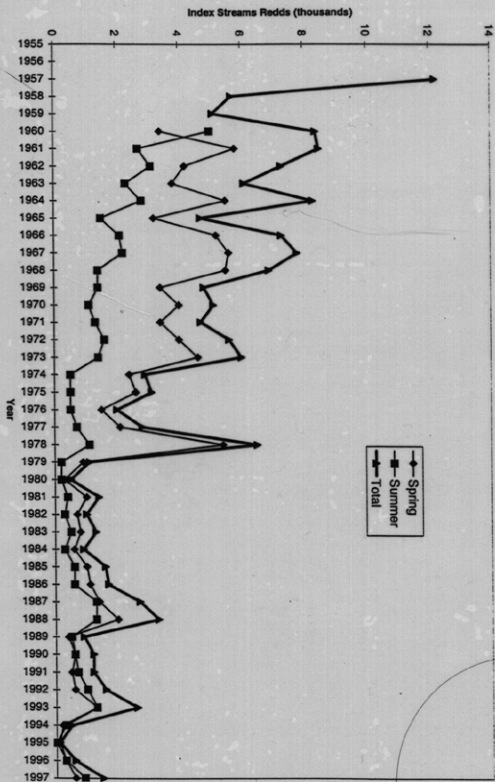
What this graph does not tell the public is where things went wrong. Where in the salmon's lifecycle have impacts been the most severe? In other words, how much of each "H" is responsible for the decline. This is a vitally important question both in terms of biology and policy. The public deserves to know where the restoration bang is biggest for their buck, and in terms of equity and fairness one sector of the economy should not shoulder the brunt of the regulatory stick if their contribution to species decline is no longer the primary mortality factor.

4 The Corps DEIS does not contain sufficient information highlighting how each H has contributed, and continues to contribute, to species decline. Fortunately, the PATH process did a good job of looking at historical and current information to provide such a breakdown. The second graph we would like entered into the record compares the changes in survival rates in the freshwater portion of the lifecycle. From the period of adult spawning (spring/summer chinook) to the time when the next generation smolts migrate to sea, we are able to estimate how many smolts are produced per spawner, which is a function of habitat quality. We also have information on smolt to adult return rates from the early 1960s through the mid-1990s. The graph provides a comparison of the two life stages. It is plain to see that the survival rates in the habitat portion of the spring/summer chinook life cycle are largely unchanged over the past 30 years. In contrast, it is the decline in the smolt to adult life stage where we have seen survival rates decrease.

5 There is little doubt that a comprehensive strategy to recover ESA-listed Snake River salmon and steelhead will require us to address survival issues at each state of the salmonid's life cycle. However, the information presented in the Corps documents and public hearing displays does not properly acknowledge that survival in the smolt to adult stage – where hydropower has major impacts and where breaching the lower Snake River dams would drastically improve survival – is the main source of the problem.

Snake River Salmon Survival Trends: Hydro and Ocean-related versus freshwater habitat





(Source: ODFW and NMOW, 1998; Matthews and Waples, 1991)

Figure 4.5-6. Index Streams Spring and Summer Chinook Redd Counts in Northeast Oregon and Idaho, 1957-1997

The science of Snake River Salmon Recovery: Breach versus Non-Breach Alternatives

Introduction

In December 1999, the U.S. Army Corps of Engineers and Federal Caucus* released two draft reports containing the latest biological information on Snake River salmon recovery. While neither report recommended whether the lower Snake River dams must be breached in order to restore Snake River salmon, the draft All-H report presented a menu of recovery actions that alone, or in various combinations, might lead to recovery of certain Snake River salmon stocks. The purpose of this paper is to summarize the biological potential of each H for restoring Snake River salmon to self-sustaining, harvestable levels as required by law and treaty.

Recovery versus Extinction Avoidance

The draft Army Corps EIS and draft All-H paper incorporated science both from PATH (Plan for Analyzing and Testing Hypotheses) and CRI (Cumulative Risk Initiative). The PATH team consists of federal, state, and tribal representatives, while the CRI is comprised solely of NMFS scientists working out of the Northwest Fisheries Science Center in Seattle.

One of the major differences between PATH and CRI is the fact that PATH findings emphasized the potential effectiveness of recovery actions in terms of the probability of meeting specific *survival* and *recovery* standards, while the CRI studies to date have measured potential effectiveness only in terms of *extinction avoidance*. Specifically, PATH defines recovery as the fraction of simulation runs for which the average spawner abundance over the last 8 years of a 48-year simulation is greater than a specified level. For spring/summer chinook stocks the proposed specified level of abundance is 60 percent of the pre-1971 brood-year average spawner counts in each of seven index streams. For fall chinook, the proposed recovery standard is 2,500 mainstem spawners.

7 | The CRI projects the risk that an ESU (Evolutionarily Significant Unit) will reach a quasi-extinction threshold within 10 and 100 years. Quasi-extinction is defined as one or fewer fish returning in any one year, a definition that by the Federal Caucus' own admission "may not be sufficiently conservative." The CRI does not identify recovery standards. Other studies – including NMFS' own – have used extinction thresholds of 15, 50, or even 300 fish. In fact, recent comments by the Independent Scientific Advisory Board emphasized that even PATH's survival and recovery criteria – which were based on earlier recommendations from the NMFS' proposed recovery plan for Snake River salmon – were too low.

8 | The NMFS has clearly pushed PATH survival and recovery standards aside and is using the CRI extinction avoidance analysis to determine the adequacy of the options. However, NMFS fully admits that avoiding extinction does not equate to recovery. The agency must – in order to properly analyze all possible recovery options – define future abundance levels necessary to recover listed stocks (i.e., as defined in the All-H paper, naturally sustaining harvestable populations). Obviously, Snake River salmon and steelhead populations must be significantly larger to achieve "recovery" as opposed to merely "avoiding extinction." Therefore, NMFS must identify species-specific recovery levels that meet ESA and treaty needs as soon as possible because only then will stakeholders be able to properly analyze the various management alternatives necessary to achieve such goals.

Federal Caucus Conclusions: Fall Chinook

9 | The All-H paper concludes that a 4 percent increase in population growth is necessary to reduce long-term extinction probabilities for fall chinook. Assuming that indirect mortality attributable to the hydrosystem or smolt transportation program is low, the paper also asserts that the 4 percent increase can be achieved without partial dam removal through a 50 percent reduction in in-river and ocean harvest, or a 75 percent harvest cut in either fishery.

Reality

- According to PATH modeling both partial dam removal and non-dam removal options meet survival standards, but only drawdown actions meet recovery thresholds under all assumptions.
- Because partial dam removal results in a 77 percent increase in habitat (approximately 140 miles), PATH concluded that fall chinook numbers would exceed harvestable levels – between 8,000 and 22,000 fish – within 15-20 years. Projected fall chinook abundance under the transportation options range only from 2,100 to 6,300 fish.
- Unless the lower Snake River dams are breached, the only way to expand fall chinook habitat and ensure harvestable runs is to either remove or provide fish passage at Hells Canyon Complex to provide access to historical mainstem strongholds in the Snake River's Marsing Reach located between Idaho Power Company's Brownlee and Swan Falls dams.
- Alaska Department of Fish & Game (ADFG) studies indicate that eliminating the entire southeast Alaska commercial salmon troll fisher would result in only 5-68 additional fall chinook making it back to Snake River spawning grounds.
- Because 60 percent of the fall chinook ocean harvest occurs in Canadian waters, 50-75 percent harvest cuts would require Canadian cooperation and re-opening Pacific Salmon Treaty allocation negotiations.
- If the lower Snake River dams are not removed, significant amounts of Upper Snake River water – cooled after being stored in Brownlee Reservoir and released into the lower Snake River via a multi-level intake structure – will likely be necessary to ensure species survival.

Federal Caucus Conclusions: Spring/Summer Chinook

The All-H paper concludes – assuming low indirect (delayed or extra) mortality attributable to the hydrosystem or fish transportation – that there is no single action that will be sufficient to reduce the extinction risks for Snake River spring/summer chinook. However, initial CRI modeling efforts assert that population growth rates can be raised sufficiently – without partial dam removal – to reduce extinction risks by drastically improving natal stream habitat (i.e. first year survival) combined with maximized juvenile fish transportation, increased estuary and near-shore ocean survival, and eliminating harvest.

Reality

- Habitat is not a significant limiting factor for most Snake River spring/summer chinook. Central Idaho has over 3,700 miles of high quality spawning and rearing habitat, much of which is located in wilderness areas or wild and scenic river corridors.
- The hypothetical increases in first year survival via habitat improvements are extremely large and would require draconian land use restrictions throughout the Snake River basin; the All-H paper provides no insight regarding the connection between increased first-year survival and correlative land management prescriptions necessary to ensure such growth rates.
- Where habitat production bottlenecks do exist, it will take decades to restore conditions that would significantly benefit spring/summer chinook. Recent studies indicate that many populations don't have that kind of time.
- Fish tagging data show that harvest has negligible impacts (combined ocean and in-river harvest < 7 percent) on Snake River spring/summer chinook.
- PATH modeling – which has been peer reviewed – concluded that partial removal of the four lower Snake River dams was the most robust restoration alternative, and the most likely to both ensure survival and eventually recover spring/summer chinook.

The Bottom Line

The NMFS' latest Snake River salmon restoration reports do not identify any single action or suite of actions, other than dam breaching, that is likely to recover ESA-listed Snake River salmon and steelhead. While some of the options analyzed in the federal caucus All-H paper would, under optimistic and largely unsupported assumptions, help avoid extinction, such measures do not meet recovery needs, or ensure that the overall goal of naturally sustainable, harvestable runs is achieved.

* The Federal Caucus included the following agencies: National Marine Fisheries Service, Army Corps of Engineers, Bonneville Power Administration, Bureau of Indian Affairs, Bureau of Land Management, Bureau of Reclamation, Environmental Protection Agency, Fish and Wildlife Service, and Forest Service.

An Economic Strategy for the Lower Snake River

Prepared for

Trout Unlimited

by

ECONorthwest

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